Four questions, 25 points each

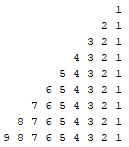
1. (Occurrence of max numbers) Write a program that reads integers, finds the largest of them, and counts its occurrences. Assume the input ends with number 0. Suppose you entered 3 5 2 5 5 5 0; the program finds that the largest is 5 and the occurrence count for 5 is 4.

Enter numbers: 3 5 2 5 5 5 0

The largest number is 5

The occurrence count of the largest number is 4

2. Write a program using nested loops that displays the following pattern:



3. (Reverse a string) Write a program that prompts the user to enter a string and displays the string in reverse order.

Enter a string: ABCD

The reversed string is DCBA

4. (Count) Write a program that prompts the user to enter a string and displays the number of vowels and consonants as well as the number of uppercase and lowercase characters in the string.

Sample run:

Enter a string: Manhattan College

The number of vowels is 6

The number of consonants is 10

The number of uppercase characters is 2

The number of lowercase characters is 14